

CLAIMS

What is claimed is:

1. An optical device comprising:
 - a housing;
 - at least one optical subassembly substantially disposed within the housing and defining a longitudinal axis; and
 - a substrate substantially disposed within the housing and residing in a plane that is substantially perpendicular to the longitudinal axis defined by the at least one optical subassembly, the substrate including electronic circuitry.
2. The optical device as recited in claim 1, wherein the at least one optical subassembly comprises at least one of: a transmit optical subassembly and a receive optical subassembly.
3. The optical device as recited in claim 1, wherein the substrate includes a connector in electrical communication with at least some of the electronic circuitry of the substrate.
4. The optical device as recited in claim 3, wherein the substrate is configured to connect to a host bus adapter.
5. The optical device as recited in claim 1, wherein the at least one optical subassembly is mechanically and electrically connected to the substrate.

6. An optoelectronic interface device suitable for use in implementing an optical connection to a host device, comprising:

a host bus adapter having a printed circuit board with at least one connector for electrically interfacing with the host device; and

an optical transceiver configured to mechanically and electrically interface with the host bus adapter and comprising:

a housing;

a transmit optical subassembly and a receive optical subassembly substantially disposed within the housing, each of which defines a corresponding longitudinal axis; and

a transceiver substrate substantially disposed within the housing and residing in a plane that is substantially perpendicular to the longitudinal axes respectively defined by defined the transmit optical subassembly and the receive optical subassembly, the transceiver substrate including electronic circuitry.

7. The optoelectronic interface device as recited in claim 6, wherein the optoelectronic interface device is configured to be substantially received within a standard slot of the host device.

8. The optoelectronic interface device as recited in claim 7, wherein the standard slot comprises one of: a PCI card slot; and a PCMCIA card slot.

9. The optoelectronic interface device as recited in claim 6, wherein the host bus adapter comprises a printed circuit board for one of: a peripheral component interconnect card; and, a PCMCIA card.

10. The optoelectronic interface device as recited in claim 6, further comprising a face plate defining cutouts and being attached, at least indirectly, to at least one of: the optical transceiver; and, the host bus adapter.

11. The optoelectronic interface device as recited in claim 10, wherein the faceplate includes at least one status indicator.

12. An optical transceiver comprising:

a housing;

a transmit optical subassembly substantially disposed within the housing and defining a longitudinal axis;

a receive optical subassembly substantially disposed within the housing and defining a longitudinal axis; and

a transceiver substrate substantially disposed within the housing and residing in a plane that is substantially perpendicular to the longitudinal axes respectively defined by the transmit optical subassembly and the receive optical subassembly, the transceiver substrate including electronic circuitry, and the transceiver substrate being physically and electrically connected to the transmit optical subassembly and the receive optical subassembly.

13. The optical transceiver as recited in claim 12, wherein the optical transceiver is suitable for use in connection with data rates at least as high as about 10 Gbps.

14. The optical transceiver as recited in claim 12, wherein the substrate includes a connector configured to interface with a host bus adapter.

15. The optical transceiver as recited in claim 12, wherein the substrate includes a connector configured to interface with one of: a PCI card; and, a PCMCIA card.

16. The optical transceiver as recited in claim 12, wherein the transceiver substrate defines front and rear sides, portions of the electronic circuitry being disposed on both the front and rear sides of the transceiver substrate.

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